PATENT
Docket No. 58210US004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Fink et al.)	Group Art Unit:	1647
	10/788,731)	Examiner:	Fozial M. Hamud
Filed:	27 February 2004	· } · .		
For:	SELECTIVE MODULATIO	ON OF T	LR-MEDIATED BI	OLOGICAL ACTIVITY
	FACSIMILE TRA	Ansmis	SION TO THE PT	Q ,
Mail Stop 16 Director of the P.O. Box 145 Alexandria, V				ing cover page): 18 (Central Time) be complete by
transmission: Rule 1.8 (1 ps for Extension August 2007:	e): Request for Continued Exc of Time (1 pg): Amendment of statement for Deposit Accoun): copy o amination and Resp at No. 13-	f Large Entity Facsing (RCE) Transmittal onse (II pgs); redact 4895 (I pg).	nile Transmission Under (1 pg); copy of Petition ted copy of page I of
months to en	ler this a PETITION FOR I ter these papers and please scount No. 13-4895.	charge	any additional fees	or credit overpayment
October Oate	B . 2007		Mueting, Raasch & Customer Number: By: Line flux Christopher D. Gra Reg. No. 43,643 Direct Dial 612/305	26813 D. Ster
paper(s), as deserved Patent and Trad	E UNDER 37 C.F.R. \$1.8: The uncribed hereinabove, are being transfermark Office addressed to the Mail on this 150 day of October.	mitted by I I Stop 16, (facsimile in accordance v Commissioner for Patent	vith 37 CFR § 1.5(d) to the s, P.O. Box 1450, Alexandria,
October 8	. 2007	Signat	ure: Jul Dombra	rske .
18 do not on	onive all marries please CORRECT IN STREET		Sue Dombroske	228 (fix)

PAGE 1/18 * RCVD AT 10/8/2007 12:38:33 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-5/10 * DNIS:2736500 * CSID:6123051228 * DURATION (mm-ss):03-08

PATENT Docket No. 58210US004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Fink et al.)	Group Art Unit:	1647
Serial No.:	10/788,731)	Examiner:	Fozial M. Hamud
Confirmation	No.: 6098)		
Filed:	27 February 2004)		
For:	SELECTIVE MODULATION	ON OF	TLR-MEDIATED BI	OLOGICAL ACTIVITY

REQUEST FOR REFUND

Mail Stop 16
Director of the USPTO
P.O. Box 1450
Alexandria, VA 22313-1450

In connection with the above-identified patent application, an incorrect charge of \$400 for claims in excess of twenty was charged to Deposit Account No. 13-4895.

Background

When the subject application was originally filed, Applicants paid for 55 total claims, and 4 independent claims.

In response to the first Office Action dated September 29, 2006, Applicants deleted two claims, and did not add any claims; thus, no additional claims fees were required.

In response to the second Office Action dated May 2, 2007, Applicants deleted 26 claims, and did not add any claims; thus, no additional claims fees were required.

There have been no further claim amendments in regard to the subject patent application; thus, no additional claims fees are appropriate.

Please find enclosed a copy of the Large Entity Transmittal Under Rule 1.8, the Request for Continued Examination (RCE) Transmittal, the Petition for Extension of Time, and the Amendment and Response, all filed on September 4, 2007 in response to the Office Action dated May 2, 2007. Also enclosed is a redacted copy of page 1 of the September 2007 statement for

Request for Refund Applicant(s): Fink et al.

Serial No.: 10/788,731

For: SELECTIVE MODULATION OF TLR-MEDIATED BIOLOGICAL ACTIVITY

Page 2 of 2

Deposit Account No. 13-4895 showing the correct charges of \$790 for the RCE, and \$120 for the extension of time fee, and the incorrect charge of \$400 for claims in excess of twenty.

Conclusion

Applicants respectfully request the amount of \$400 be refunded to Deposit Account No. 13-4895.

If there are any questions concerning this request, please do not hesitate to telephone the undersigned attorney at 612/305-0412.

CERTIFICATE UNDER 37 C.F.R. 1.8:

The undersigned hereby certifies that this paper is being transmitted by facsimile in accordance with 37 CFR \$1.6(d) to the Patent and Trademark Office, addressed to: Mail Stop 16, Director of the USPTO, P.O. Box 1450, Alexandria, VA 22313-1450, on this 8th day of October, 2007, at //:40 cm (Central Time).

Dombroske

Name: Sue Dombroske

October 2007 Date

CDG/skd

Respectfully submitted By

Mueting, Raasch & Gebhardt, P.A. P.O. Box 581415

Minneapolis, MN 55458-1415

Phone: (612)305-1220 Facsimile: (612)305-1228

Christopher D. Gram

Reg. No. 43,643

Direct Dial 612/305-0412



PATENT Docket No. 58210US004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Fink et al.)	Group Art Unit:	1647
Serial No.: Confirmation	10/788,731 No.: 6098)	Examiner:	Fozia M. Hamud
Filed:	27 February 2004)		
For:	SELECTIVE MODULATIO	N OF T	LR-MEDIATED BIOI	<u>.og</u> ical activity
	FACSIMILE TRA	NSMIS	SSION TO THE PTO	
Commissioner Mall Stop <u>RC</u> P.O. Box 1450 Alexandria, V	E		FAX NUMBER: <u>(5</u> Total Pages (including Time: <u>A: O5 pm</u> (Transmission must be midnight eastern time	g cover page):15(Central Time)e complete by
transmission:	papers are being transmitted Amendment and Response (page in duplicate): Petition fo	11 pgs):	Request for Continued	ffice by facsimile i Examination (RCE)
Please consider these papers and	this a PETITION FOR EXTENSI d please charge any additional fee	ON OF	TIME for a sufficient num lit overpayment to Deposit	nber of months to enter t Account No. 13-4895.
9 4 200 Date	7	By: Christ Reg. N	ng, Raasch & Gebhardt mer Number: 26813 worden D. Gram Vo. 43,643 Dial (612)305-0412	s, P.A.
paper(s), as description	UNDER 37 C.F.R. \$1.8: The undribed hereinabove, are being transm mark Office addressed to the Committee and the Committee of	itted by f hissioner	acsimile in accordance with for Patents, Mail Stop RCE	37 CFR §1.6(d) to the P.O. Box 1450,
Section 4	, 2003	Signati	ure: <u>Dani moroz</u>	
		1701115.		

If you do not receive all pages, please contact us at (612)305-1220 (ph) or (612)305-1228 (fax).



PTO/SB/30 (04-07)

Approved for use through 09/30/2007, OMB 0951-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Request 10/788 731 Application Number for 27 February 2004 Filing Date Continued Examination (RCE) Jason R. Fink First Named Inventor Transmittal Address to: Art Unit Mail Stop RCE Fozio M. Hemud Commissioner for Patents Examiner Name P.O. Box 1450 Alexandria, VA 22313-1450 Attorney Docket Number | 58210US004 This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-Identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2. Submission required under 37 CFR 1.114 Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filled unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such emendment(s). Previously submitted. If a final Office action is outstanding, any amendments filed efter the final Office action may be considered as a submission even if this box is not chacked. Consider the arguments in the Appeal Brief or Reply Brief previously filed on п Other b. Enclosed Information Disclosure Statement (IDS) Amendment/Reply Affidavit(s)/ Declaration(s) Other Miscellaneous Suspansion of scilon on the above-identified application is requested under 37 CFR 1.103(c) for a months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(I) required) parled of Other Fees The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filled. The Director is hereby authorized to charge the following less, any underpayment of less, or credit any overpayments, to 1 . I have enclosed a duplicate copy of this sheet. Deposit Account No. _13-4895 RCE fee required under 37 CFR 1.17(e) I, Extension of time fee (37 CFR 1.136 and 1 17) 11. Ш Other _enclosed Check in the amount of \$ Payment by credit card (Form PTO-2038 enclosed) WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED (MISHOWID) XXXX 9/4/2007 Date Signature Registration No. Name (Print/Type) 43,643 Christopher D. Gram CERTIFICATE OF MAILING OR TRANSMISSION I hereby certify that this correspondence is being deposited with the United States Poetal Service with sufficient postage as first class mail in an envelope addressed to: Mes Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandrie, VA 22313-1450 or feesimile transmitted to the U.S. Patent and Tradomeric addrawed to: Me3 Stop RCE, Commissioner for Petents, P. O. Box 1450, Alexandrie, VA 22313-1450 or recommiss district shown below.

Signature

Name (Print/Type)

This objection of Information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This defection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. There will vary depending upon the individual case. Any comments of the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450, DO NOT SEIND FEES OR COMPLETED FORMS TO THIS connected SENIX TO: Mail Stop RCE Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

ADDRESS. SEND TO: Mall Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 23313-1450.

If you need assistance in completing the form, cell 1-800-PTO-9199 and select option 2.



PATENT Docket No. 58210U\$004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Fink et al.) Group Art Unit:	1647
Serial No.: Confirmation	10/788,731 No.: 6098) Examiner:	Fozia M. Hamud
Filed:	27 February 2004)	
For:	SELECTIVE MODULATIO) ON OF TLR-MEDIATED B	IOLOGICAL ACTIVIT

PETITION FOR EXTENSION OF TIME

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. §1.136(a), it is respectfully requested that a one-month extension of time be granted in which to respond to the outstanding Office Action mailed 2 May 2007, thereby extending the date on which the period of response is set to expire from 2 August 2007 to 2 September 2007. Because 2 September 2007 falls on a Sunday, the request is effective for a carryover to 4 September 2007, the next business day.

Please charge PTO Deposit Account No. 13-4895 in the amount of \$120 to cover the required extension fee. Please charge any additional fees or credit any over-payment to PTO Deposit Account No. 13-4895.

CERTIFICATE UNDER 37 C.F.R. 1.8:

The undersigned hereby certifies that this paper is being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 4th day of September, 2007, at 1:15. 00 (Central Time).

By: Dani mores

9/4/2007

Respectfully submitted

By

Mueting, Raasch & Gebhardt, P.A.

P.O. Box 581415

Minneapolis, MN 55458-1415

Phone: (612)305-1220

Thore. (012)303-1220

Facsimile: (612)305-1228

Customer Number 26813

Christopher D. Gram

Reg. No. 43,643

Direct Dial (612)305-0412



PATENT Docket No. 58210US004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Fink et al.	Group Art Unit:	1647
Serial No.: Confirmation	10/788,731 No.: 6098	Examiner:	Fozia M. Hamud
Filed:	27 February 2004		
For:	SELECTIVE MODULATION	OF TLR-MEDIATED BIO	LOGICAL ACTIVITY

AMENDMENT AND RESPONSE UNDER 37 CFR §1.116

Commissioner for Patents Mail Stop RCE P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action mailed 2 May 2007, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on the page entitled "Amendments to the Claims."

Remarks begin on the page entitled "Remarks."

COPY

Page 2 of 11

Amendment and Response Serial No.: 10/788,731 Confirmation No.: 6098 Filed: 27 February 2004

For: SELECTIVE MODULATION OF TLR-MEDIATED BIOLOGICAL ACTIVITY

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

1. (Previously Presented) A method of identifying a compound that selectively modulates at least one TLR-mediated cellular activity, the method comprising:

providing an assay to detect modulation of a TLR7-mediated cellular activity and an assay to detect modulation of a TLR8-mediated cellular activity;

performing the assay to detect modulation of a TLR7-mediated cellular activity using a test compound and human cells that naturally express TLR7;

performing the assay to detect modulation of a TLR8-mediated cellular activity using the test compound and human cells that naturally express TLR8; and

identifying the test compound as a compound that selectively modulates at least one TLR-mediated cellular activity if the test compound modulates the TLR7-mediated cellular activity to a different extent than it modulates the TLR8-mediated cellular activity.

- (Previously Presented) The method of claim 1 wherein the compound modulates a TLR7-mediated cellular activity and does not modulate a TLR8-mediated cellular activity.
- (Previously Presented) The method of claim 1 wherein the compound modulates a TLR8-mediated cellular activity and does not modulate a TLR7-mediated cellular activity.
- 4-8. (Canceled)
- 9. (Currently Amended) A method of identifying a target compound having a TLR modulation profile that conforms to a target TLR modulation profile, the method comprising: selecting a target TLR modulation profile;



Page 3 of 11

Confirmation No.: 6098 Filed: 27 February 2004

For: SELECTIVE MODULATION OF TLR-MEDIATED BIOLOGICAL ACTIVITY

determining the TLR modulation profile of a test compound by:

providing an assay to detect modulation of a first TLR-mediated cellular activity and an assay to detect modulation of a second TLR-mediated cellular activity,

performing the assay to detect modulation of the first TLR-mediated cellular activity using the test compound.

performing the assay to detect modulation of the second TLR-mediated cellular activity using the test compound, and

determining the extent to which the test compound modulates each TLRmediated cellular activity; and

identifying the test compound as a target compound if the TLR modulation profile of the test compound conforms to the target TLR modulation profile.

- 10. (Original) The method of claim 9 wherein at least one TLR modulation profile comprises TLR6-mediated cellular activity.
- 11. (Original) The method of claim 10 wherein at least one TLR modulation profile comprises modulation of TLR6-mediated cellular activity.
- 12. (Original) The method of claim 11 wherein at least one TLR modulation profile comprises substantially no modulation of TLR7-mediated cellular activity.
- 13. (Original) The method of claim 9 wherein at least one TLR modulation profile comprises TLR7-mediated cellular activity.
- 14. (Original) The method of claim 13 wherein at least one TLR modulation profile comprises modulation of TLR7-mediated cellular activity.



Page 4 of 11

Confirmation No.: 6098 Filed: 27 February 2004

For: SELECTIVE MODULATION OF TLR-MEDIATED BIOLOGICAL ACTIVITY

- 15. (Original) The method of claim 14 wherein at least one TLR modulation profile comprises substantially no modulation of TLR6-mediated cellular activity.
- 16. (Original) The method of claim 14 wherein at least one TLR modulation profile comprises substantially no modulation of TLR8-mediated cellular activity.
- 17. (Original) The method of claim 9 wherein at least one TLR modulation profile comprises TLR8-mediated cellular activity.
- 18. (Original) The method of claim 17 wherein at least one TLR modulation profile comprises modulation of TLR8-mediated cellular activity.
- 19. (Original) The method of claim 18 wherein at least one TLR modulation profile comprises substantially no modulation of TLR7-mediated cellular activity.
- 20. (Original) The method of claim 9 wherein at least one TLR modulation profile comprises TLR9-mediated cellular activity.
- 21. (Original) The method of claim 20 wherein at least one TLR modulation profile comprises modulation of TLR9-mediated cellular activity.
- 22. (Original) The method of claim 9 wherein the target TLR modulation profile includes one or more TLR-mediated cellular activities that are not detectably modulated by a target compound.
- 23-24. (Canceled)

Amendment and Response Serial No.: 10/788,731 Confirmation No.: 6098



Page 5 of 11

Filed: 27 February 2004
For: SELECTIVE MODULATION OF TLR-MEDIATED BIOLOGICAL ACTIVITY

25. (Previously Presented) A method of selectively modulating cells of the immune system, the method comprising:

identifying a first human immune system cell population that naturally expresses TLR7 and a second human immune system cell population that naturally expresses TLR8;

selecting a compound that modulates a TLR7-mediated cellular activity of the first cell population to a different extent than it modulates a TLR8-mediated cellular activity of the second cell population; and

contacting cells of the immune system with the selected compound in an amount effective to modulate a TLR-mediated cellular activity of at least one of the cell populations.

- 26. (Original) The method of claim 25 wherein the method further comprises determining the TLR expression profile of the first cell population and the TLR expression profile of the second cell population.
- 27. (Original) The method of claim 26 wherein the step of selecting a compound comprises comparing the TLR expression profile of the first cell population and the TLR expression profile of the second cell population with a TLR modulation profile of the compound.
- 28. (Original) The method of claim 25 wherein modulating cells of the immune system comprises detectably activating the cells or detectably inhibiting the cells.
- 29. (Original) The method of claim 25 wherein the compound modulates the first cell population and does not detectably modulate the second cell population.
- 30. (Original) The method of claim 25 wherein the compound modulates both cell populations.

COPY

Page 6 of 11

Amendment and Response Serial No.: 10/788,731 Confirmation No.: 6098 Filed: 27 February 2004

For: SELECTIVE MODULATION OF TLR-MEDIATED BIOLOGICAL ACTIVITY

- 31. (Original) The method of claim 25 at least one cell population is modulated in vitro.
- 32. (Original) The method of claim 25 wherein at least one cell population is modulated in vivo.
- 33. (Original) The method of claim 25 wherein at least one immune system cell population comprises plasmacytoid dendritic cells.
- 34. (Previously Presented) The method of claim 25 wherein at least one immune system cell population comprises monocyte-derived dendritic cells.

35-55. (Canceled)

56. (Previously Presented) The method of claim 25 wherein the compound modulates the second cell population and does not detectably modulate the first cell population.

Amendment and Response Serial No.: 10/788,731 Confirmation No.: 6098



Page 7 of 11

Filed: 27 February 2004
For: SELECTIVE MODULATION OF TLR-MEDIATED BIOLOGICAL ACTIVITY

Remarks

The Office Action mailed 2 May 2007 has been received and reviewed. Claim 9 having been amended, claims 7, 8, 23, 24, and 35-55 having been canceled, the pending claims are claims 1-3, 9-22, 25-34, and 56. Reconsideration and withdrawal of the rejections are respectfully requested.

Interview Summary

Applicants thank Examiner Hamud for the courtesy of the telephonic interview held August 16, 2007, including Examiner Hamud, inventor John Vasilakos, Ph.D., and Applicants' representative Christopher Gram.

Applicants discussed claims 1, 9, and 25 with regard to the rejections under 35 U.S.C. §112, first paragraph. Applicants' remarks centered on the knowledge of one skilled in the art at the time the invention was made. Those remarks are summarized in the comments provided below.

No firm agreement was reached. However, Applicants thank Examiner Hamud for the constructive discussion and guidance.

Claim Amendments

Claims 7, 8, 23, 24, and 35-55 have been canceled without prejudice.

Claim 9 has been amended to recite, in part, determining the TLR modulation profile of a test compound by providing an assay to detect modulation of a first TLR-mediated cellular activity and an assay to detect modulation of a second TLR-mediated cellular activity, performing the assay to detect modulation of the first TLR-mediated cellular activity using the test compound, performing the assay to detect modulation of the second TLR-mediated cellular activity using the test compound, and determining the extent to which the test compound modulates each TLR-mediated cellular activity. Support for the amendment may be found generally throughout Applicants' disclosure and in claim 1.

COPY

Page 8 of 11

Confirmation No.: 6098 Filed: 27 February 2004

For: SELECTIVE MODULATION OF TLR-MEDIATED BIOLOGICAL ACTIVITY

The 35 U.S.C. §112, Second Paragraph, Rejection

Claims 1-6, 9-22, and 25-34 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants respectfully traverse.

Claims 1, 9, and 25 are the independent claims. Claims 4-6 are canceled. Each of claims 2, 3, 10-22, and 26-34 depends, directly or indirectly, from one of claims 1, 9, and 25. Thus, remarks that refer to one or more of claims 1, 9, and 25 apply equally to all claims that depend from the indicated independent claim.

With regard to claim 1, the Office Action contends that the claims do not recite how to perform the assay or what activity or result to measure (Office Action, page 4). During the telephonic interview, Dr. Vasilakos explained that one skilled in the art is aware of a multitude of different assays (e.g., cytokine secretion, co-stimulatory marker production, functional assays, etc.) that can be employed to detect whether and to what extent a compound modulates TLR7- or TLR8-mediated cellular activity. The assays, how to perform the assays, and the endpoint (that which is being measured) for each assay are well known to those skilled in the art. Applicants therefore respectfully submit that claim 1 meets the requirements of 35 U.S.C. §112, second paragraph, and request that the rejection be withdrawn.

With regard to claim 9, the Office Action asserts that one skilled in the art would not know the positive steps of the claimed method. Claim 9 has been amended to recite steps that include providing an assay to detect modulation of a first TLR-mediated cellular activity and an assay to detect modulation of a second TLR-mediated cellular activity, performing the assay to detect modulation of the first TLR-mediated cellular activity using the test compound, performing the assay to detect modulation of the second TLR-mediated cellular activity using the test compound, and determining the extent to which the test compound modulates each TLR-mediated cellular activity. As noted with regard to claim 1, the assays, how to perform the assays, and the endpoint (that which is being measured) for each assay are well known to those

Amendment and Response Serial No.: 10/788,731 Confirmation No.: 6098



Page 9 of 11

Filed: 27 February 2004
For: SELECTIVE MODULATION OF TUR-MEDIATED BIOLOGICAL ACTIVITY

skilled in the art. Applicants respectfully submit, therefore, that claim 9 meets the requirements of 35 U.S.C. §112, second paragraph, and request that the rejection be withdrawn.

With regard to claim 25, the Office Action asserts that one skilled in the art would not know which human cell type to select and again asserts that one skilled in the art would not know which cellular activity to test for. During the interview, Dr. Vasilakos stated that one skilled in the art would, indeed, know which cell populations naturally express TLR7 and/or TLR8. Claim 25 does not recite testing the activity of the compound. Rather, claim 25 recites a method that makes practical use of the observation that certain TLR agonists modulate TLR-mediated cellular activity to varying degrees. Thus, claim 25 contemplates having knowledge of a plurality of TLR agonist compounds, knowing the TLR modulation profile of each compound, and knowing the desired TLR-mediated cellular activities one wishes to modulate. One skilled in the art can then select the compound that modulates TLR7-mediated cellular activity and TLR8-mediated cellular activity in the desired fashion to achieve the desired mix of TLR-mediated cellular activities by contacting the selected compound with the immune cell population. Applicants respectfully submit that claim 25 meets the requirements of 35 U.S.C. §112, second paragraph, and request that the rejection be withdrawn.

Therefore, Applicants respectfully submit that claims 1-6, 9-22, and 25-34 satisfy 35 U.S.C. §112, second paragraph, and request that the rejection be withdrawn.

The 35 U.S.C. 8112, First Paragraph, Rejection (Enablement)

Claims 1-3, 25-34, and 56 stand rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The Office Action acknowledges that Applicants' disclosure enables identifying a compound based on assays that includes culturing certain cells and measuring the expression of certain cytokines or co-stimulatory proteins. However, the Office Actions asserts

Confirmation No.: 6098 Filed: 27 February 2004

For: SELECTIVE MODULATION OF TLR-MEDIATED BIOLOGICAL ACTIVITY



Page 10 of 11

that Applicants' disclosure does not reasonably enable one skilled in the art to practice the full scope of the claims—i.e., does not reasonably enable the claimed methods using all possible assays to detect TLR-mediated cellular activity. Applicants respectfully traverse.

As noted above with regard to the rejections under 35 U.S.C. §112, second paragraph, Dr. Vasilakos explained during the telephonic interview that one skilled in the art recognizes that a multitude of routine, well known assays can be employed to determine whether and to what extent a compound modulates TLR-mediated cellular activity. The assays, how to perform the assays, and the endpoint (that which is being measured) for each assay are well known to those skilled in the art. Thus, one skilled in the art is able to practice the full scope of the subject matter recited in claims 1-3, 25-34, and 56.

Applicants respectfully submit that claims 1-3, 25-34, and 56 meet the enablement requirement of 35 U.S.C. §112, first paragraph, and request that the rejection be withdrawn.

The 35 U.S.C. §112, First Paragraph, Rejection (New Matter)

Claims 1 and 25 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Office Action asserts that claims 1 and 25 recite "...human cells that naturally express TLR7" and "...human cells that naturally express TLR8", but that support for these limitations is lacking in Applicants' disclosure. Applicants respectfully disagree.

Examples 3 and 4 demonstrate selective modulation of plasmacytoid dendritic cells (pDCs) and myeloid dendritic cells (mDCs). The cell populations are obtained from peripheral blood mononuclear cells (PBMCs), obtained from human whole blood. The Office Action notes that a human source of the whole blood is not identified in Applicants' specification.

Human PBMCs are the source material for examples demonstrating cytokine induction in human cells by TLR agonist compounds in various patents cited in Applicants' disclosure (page 1, lines 22-32) and incorporated by reference at page 41, line 31 through page 42, line 2. PBMCs derived from human whole blood for cytokine induction assays is described, for

COPY

Page 11 of 11

Confirmation No.: 6098 Filed: 27 February 2004

For: SELECTIVE MODULATION OF TLR-MEDIATED BIOLOGICAL ACTIVITY

example, in U.S. Patent No. 6,667,312 at column 91, line 55 through column 92, line 9; U.S. Patent No. 6,677,348 at column 150, lines 6-29; U.S. Patent No. 6,677,349 at column 167, lines 7-30; and U.S. Patent No. 6,683,088 at column 67, line 58 through column 68, line 11.

Applicants respectfully request that the rejection of claims 1 and 25 under 35 U.S.C. §112, first paragraph, be withdrawn.

Summary

It is respectfully submitted that the pending claims 1-3, 9-22, 25-34, and 56 are in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicants' Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted

By

Mueting, Raasch & Gebhardt, P.A.

P.O. Box 581415

Minneapolis, MN 55458-1415

Phone: (612) 305-1220

Facsimile: (612) 305-1228

9/4/2007

Date

Christopher D. Gram

Reg. No. 43,643

Direct Dial (612) 305-0412

CERTIFICATE UNDER 37 CFR 61.8:

The undersigned hereby certifies that the Transmittal Latter and the paper(s), as described hereinabove, are being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to Mall Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 4th day of September. 2007, at 2:05 pm (Central Time).

By: Dani Moroza Name: Dani Moroza

Page 1 of 3

Deposit Account Statement



United States Patent and Trademark Office





Deposit Account Statement

Requested Statement Month:

Deposit Account Number:

Name:

Attention:

Street Address 1:

Street Address 2:

City:

State:

Zip:

Country:

September 2007

134895

MUETING RAASCH & GEBHARDT PA

ACCOUNTING

P O BOX 581415

MINNEAPOLIS

MN

55458-1415

UNITED STATES

DATE SEQ POSTING

ATTORNEY DOCKET

DOCKET C

FEE CODE

AMT

BAL

09/05 1	10788731	58210US004	1251	\$120.00	\$30,862.50
09/05 2	10788731	58210US004	1202	\$400.00	\$30,462.50
09/05 3	10788731	58210US004	1801	\$790.00	\$29,672.50

RECEIVED CENTRAL FAX CENTER

SEP 0.4 2007

PATENT Docket No. 58210US004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Fink et al.)	Group Art Unit:	1647
Serial No.: Confirmation	10/788,731 No.: 6098	,))	Examiner:	Fozia M. Hamud
Filed:	27 February 2004).)		
For:	SELECTIVE MODULATION	N OF 1	TLR-MEDIATED B	IOLOGICAL ACTIVITY

AMENDMENT AND RESPONSE UNDER 37 CFR \$1.116

Commissioner for Patents Mail Stop RCE P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action mailed 2 May 2007, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on the page entitled "Amendments to the Claims."

Remarks begin on the page entitled "Remarks."

Y 187/185/1987 TE	· · · 8888	9902	134835	19788731
81 FC:1282	408.60	20		
44 1 41 1000	1005 40	-	*	4